Opportunities & Growth

Financial Analyst Day
8 May 2003

Agenda

10.00am	The ARM World Tudor Brown, Chief Operating Officer
10.30	Segments & Growth Bruce Beckloff, Director, European Marketing
11.00	Break
11.10	Licensing Models Mark Evans, Director, Licensing
11.40	Upgrades & Derivatives John Cornish, Director, Product Marketing
12.10pm	Q&A
12.20	Lunch + Technology Demonstrations

The ARM World

Tudor Brown
Chief Operating Officer
8 May 2003

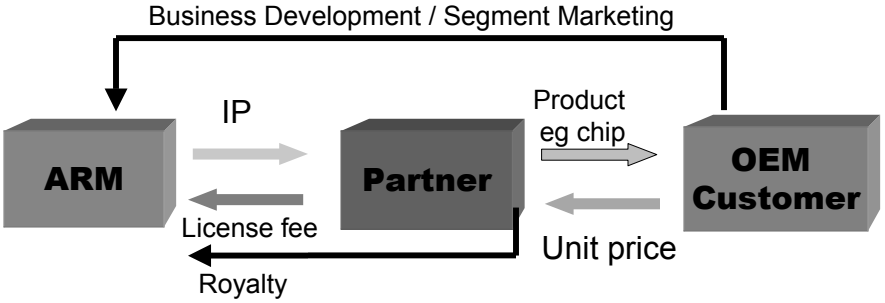
Agenda

- The ARM Community
- Doing a design
- Why buy the products?
- Resulting position

Consumers Create Demand

Channels	'Value drivers'
Retailers Hospitals Mobile Operators Car Dealers Airlines Banks Professional Services Governments	Information availability Data integrity Responsiveness Brand values Stability… Customer retention Robust supply chains Knowledge management

Understanding Customer Needs

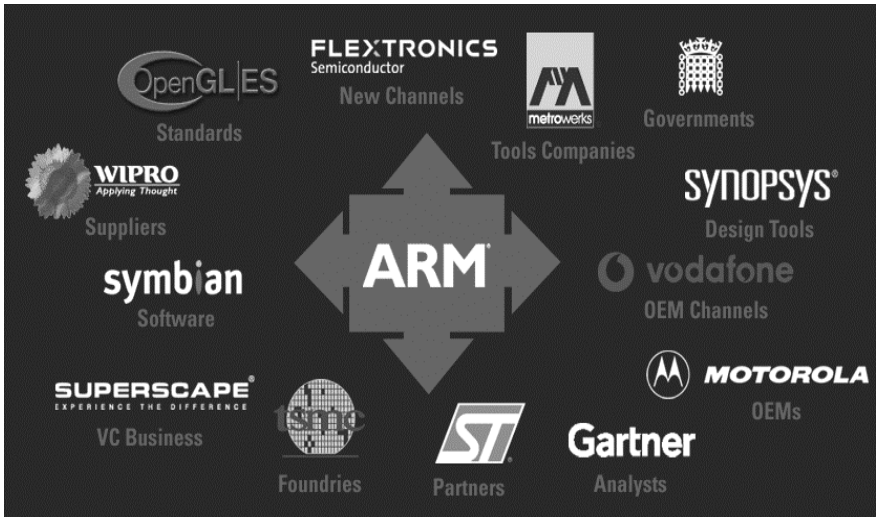


ARM creates IP through design activity

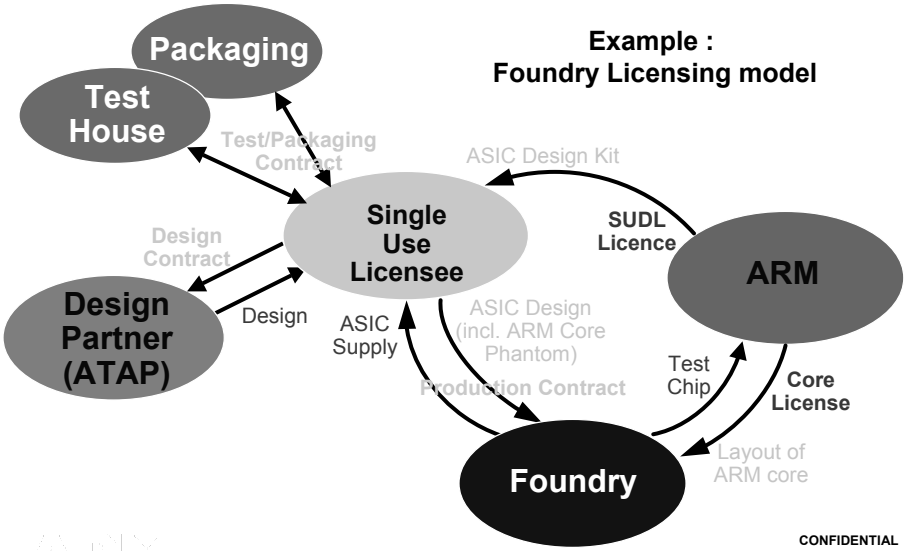
Partner combines ARM IP and Partner IP/ technology into product

OEM builds ARM core-based product from Partner into end-system product

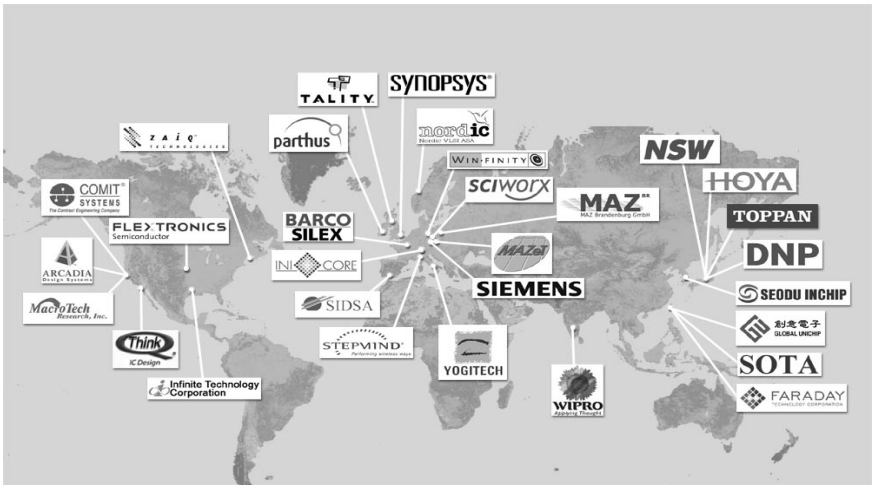
Multiple Touch Points



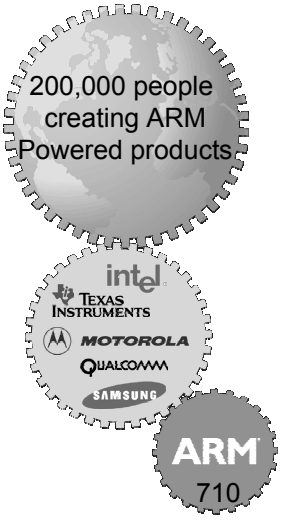
….and Changing Value Chains



With Global Design Partners



Giving 200,000 People Designing with ARM



- 112 semiconductor Partners who have internal or external manufacturing
- Doing 1000 design starts of which 600 become production worthy per annum - all of who need cores EDA tools and roadmaps
- Selling to 13,000 OEM customers
- Who have ~ 200,000 engineers worldwide actively designing with ARM cores in products
- All who need development tools and infrastructure

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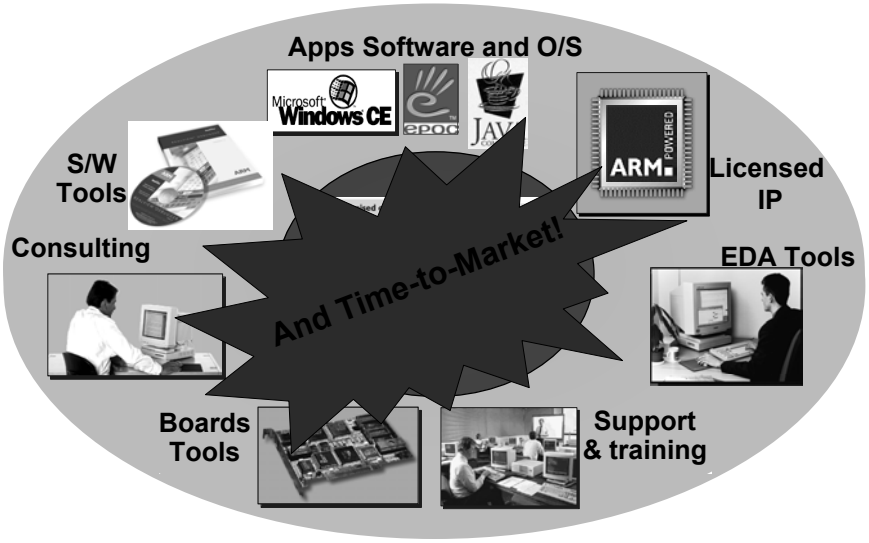
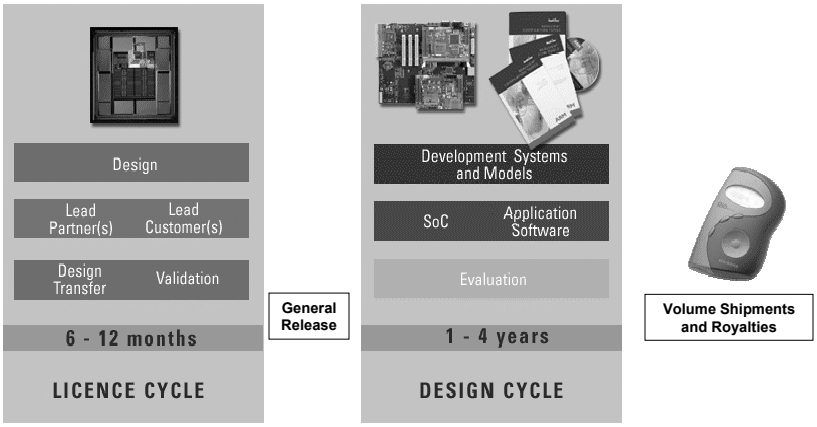
Complex Chips Need Many Ingredients



The Tools for the System Designer



Code Development by RealView® tools

Compilation Tools

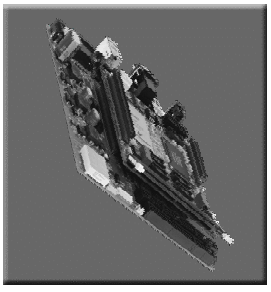
ARM Developer Suite™ Compilation Tools Generates code for the cores

Debug Tools

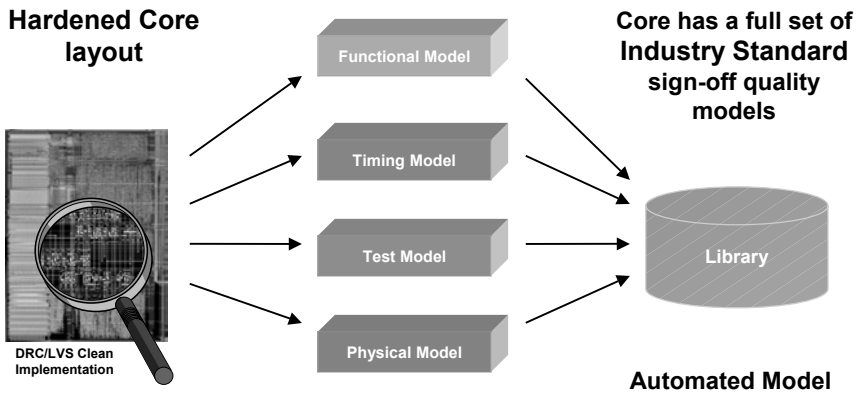
RealView Debugger Multi-ICE® MultiTrace™ Debug software

Development Boards

Integrator™ Family Integrate and test software and hardware

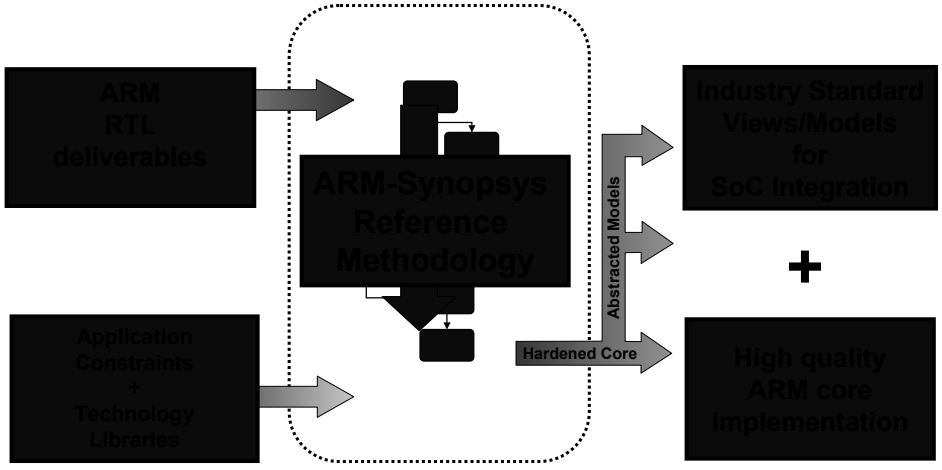


Linking to the EDA Industry



Creating Standards for Design

Example : ARM-Synopsys Reference Methodology



Working with OS Partners

- ARM is working with many OS Partners
  - Optimising
    - Performance
    - Functionality
    - Footprint
    - Development environments

Windows CE - all versions

Symbian OS - all versions

v6.2

VxWorks

v4.0

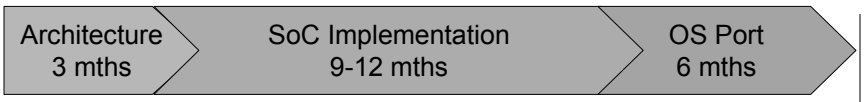
Linux

uITRON

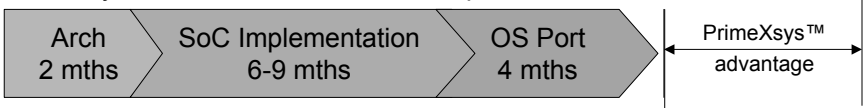
… and many more

Further Design Cycle Reduction

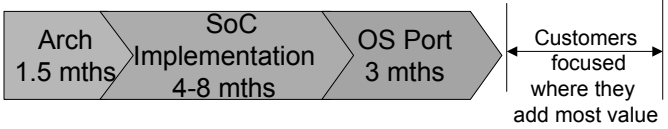
Typical SoC Development



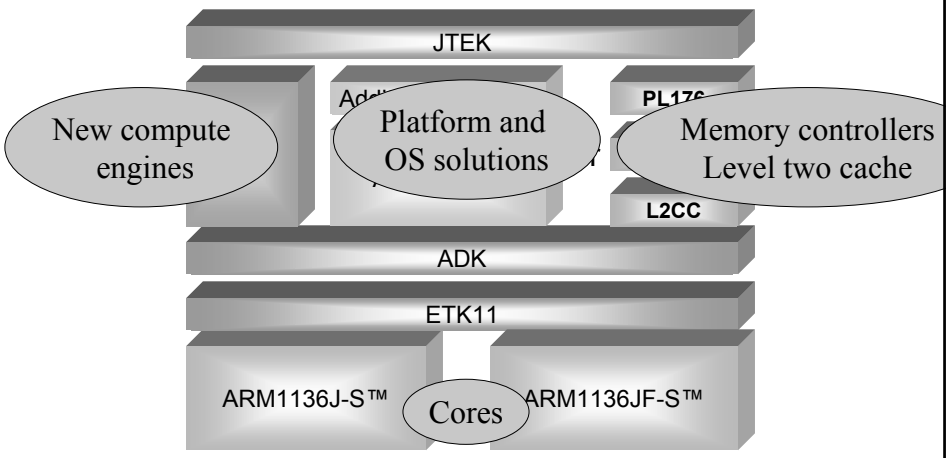
PrimeXsys Platform-based SoC Development



PrimeXsys Platform-based SoC with ***ARM DESIGN SERVICES***



Giving Partner choice



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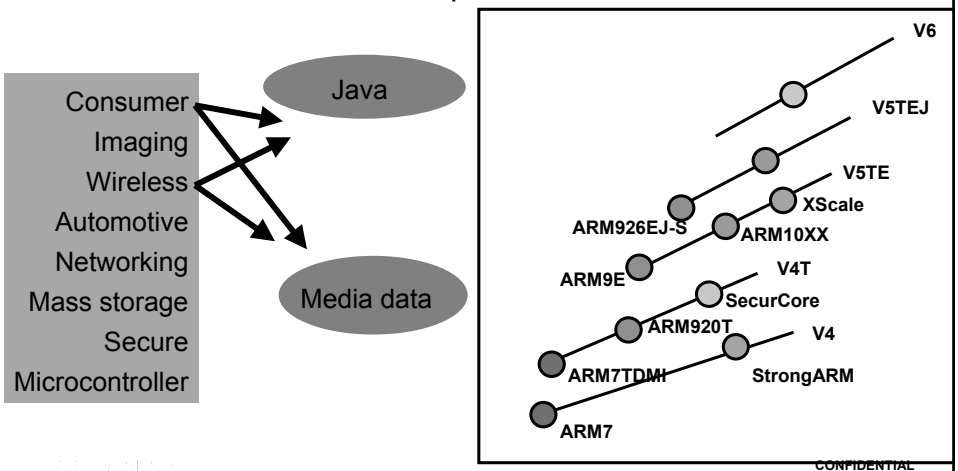
OEMs Driving Ingredients

Market segment → Technology requirement → Implementation



Ingredients are Key to Licensing

Performance is not the only driver – ingredients are critical

- Thumb® instruction set reduced code density and saved cost
- DSP extensions enabled increased signal processing and a better system level price performance trade-off
- Jazelle® hardware acceleration to accelerate performance of emerging applications for kids on mobiles

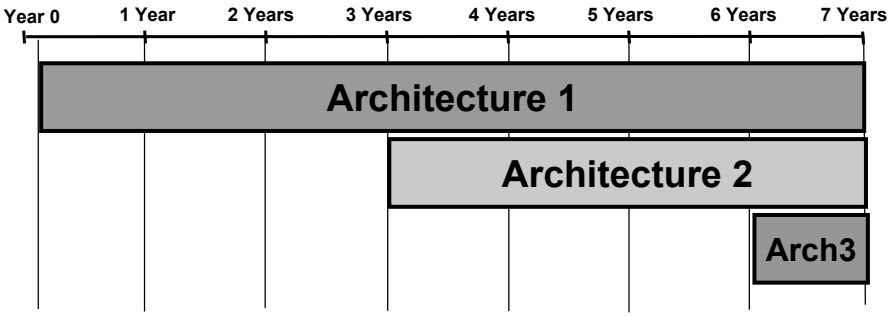
Coming soon……

- New security architectures to protect information in our mobile world
- New technology to optimise code density and performance further
- Low-power Intelligent Energy Management technology
- Dynamic clustering technologies

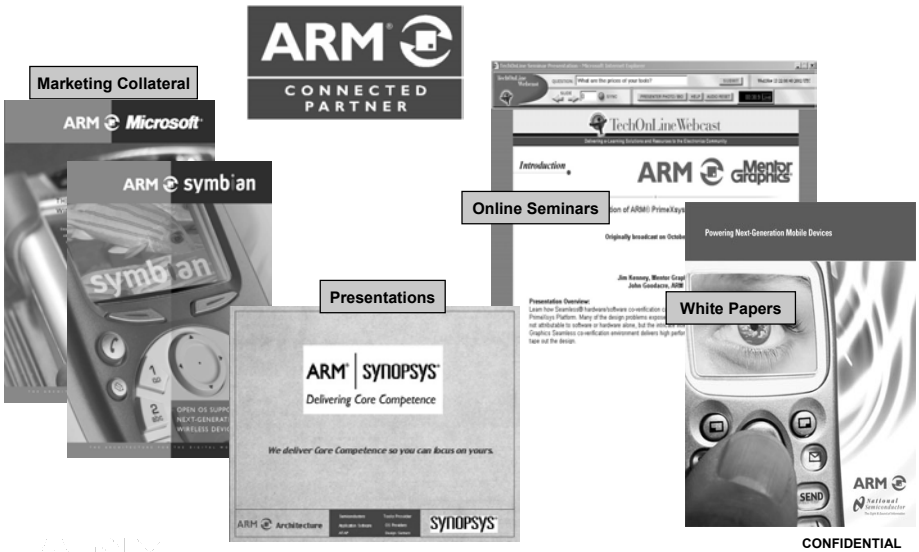
The IP Model Also Works the Cost Side

1. Architectural Definition
   - Upfront definition of ISA
   - Mostly research
   - Some high-level engineering
2. CPU Implementation
   - CPU design, implementation, verification and validation
   - Software tools, compilers, debuggers, boards
3. Platform Implementation
   - Platform infrastructure
   - Bus'ing
   - Peripheral development
   - Implementation, verification and validation
   - OS porting
4. On-Going Support Cost (Sustaining)
   - In-house support staff
   - Third-party software

..and Can Save a Multimillion $ Treadmill



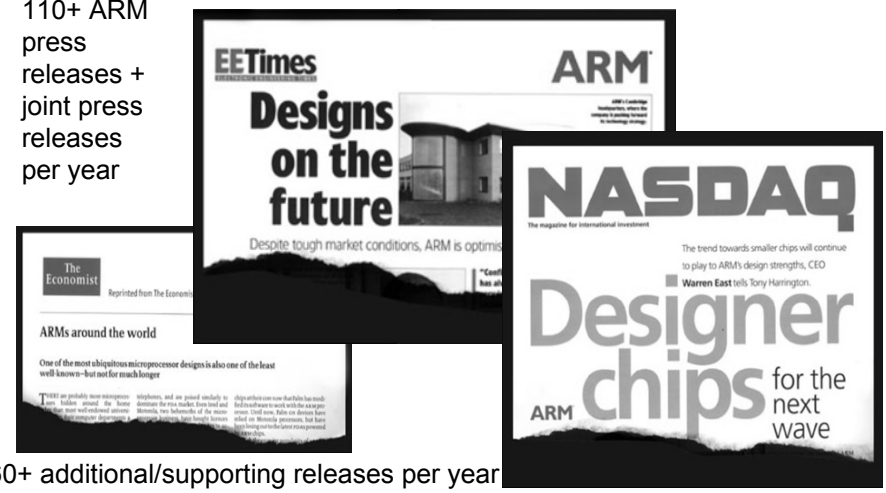
Partners also Leverage Investment



Resulting in Increased Mutual Coverage

110+ ARM press releases + joint press releases per year

500+ press clips per month



60+ additional/supporting releases per year

Agenda

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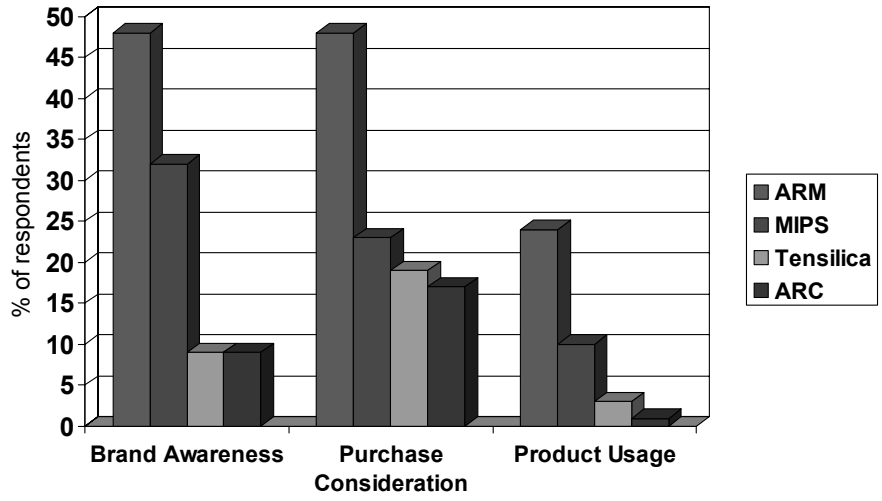
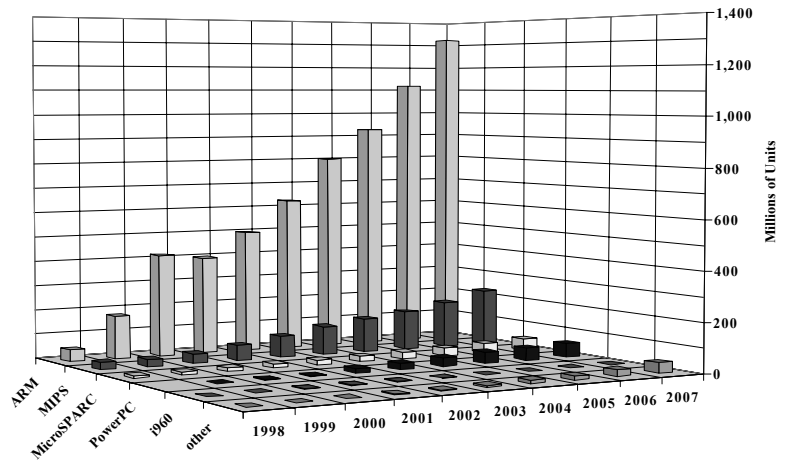
The Architecture has Growing Traction



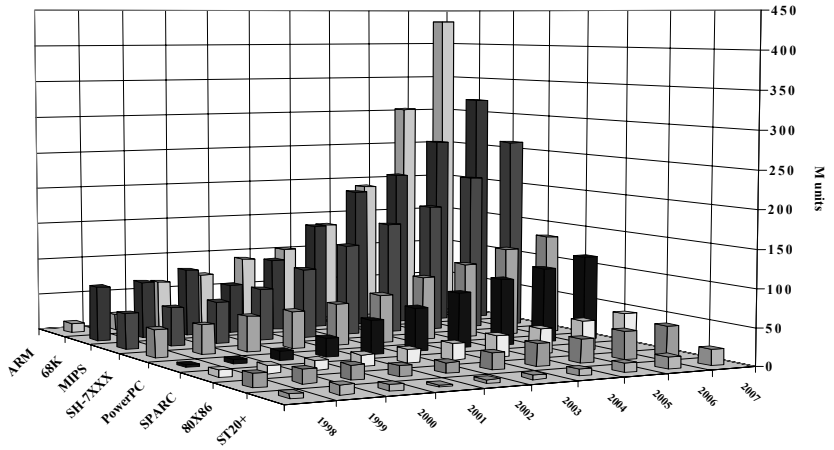
Source: CMP- EE Times Embedded Study February 2002

With Leadership in Embedded Cores



Source Semico :: Total Embedded Core, by Architecture, 4Q2002

Even in the High End – Excl. Wireless



Source Semico 4Q2002 :: High-End Embedded Control Excluding Cell Phones

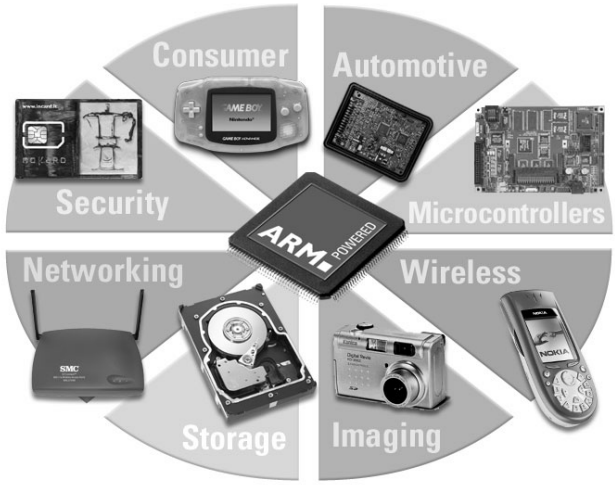
Segments and Growth

Bruce N. Beckloff
Director of Marketing - Europe
8 May 2003

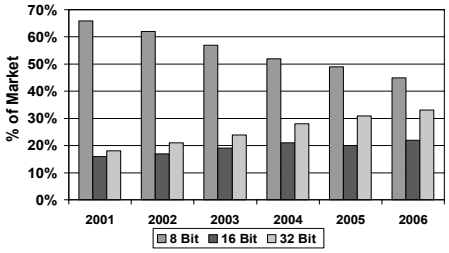
Agenda

- Applications Overview + Trends
- Market Breakdown
- ARM Strategy

Market Applications

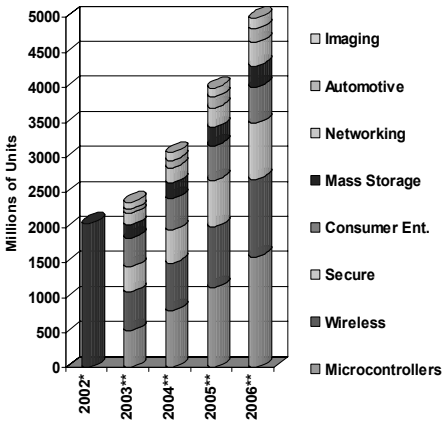


Embedded Processor Trends



Why the evolution from 8- to 32-bit?

- **Evolving standards need design flexibility**
- **Continual increase in functionality and application needs in all devices**
- **Convergence and interoperability between technologies and devices**
- **System complexity**
- **Flexibility in design for software-hardware tradeoffs**



***Source: SEMICO**
****Source: ARM Estimates of forecasts from IDC, Instat, Gartner Dataquest, and SEMICO**

Wireless

Key sub segments

- Voice phones
- Feature phones
- Smart phones / PDA
- Bluetooth™ peripherals

2003 TAM	2007 TAM	Notes
215	360	1xARM7
200	130	1xARM9
15	290	2xARM9/11
100	500	1xARM7

Segment drivers to 32-bit

- 85% market is 32-bit today
- Performance for Apps
- OS Support
- Clean SW development
- 32-bit address range
- Multimedia support

ARM's benefits to the segment

- Low power, low cost, wide support
- Symbian, Microsoft, Palm OS support
- Jazelle® Java HW accelerator
- Thumb® code density
- Great debug support
- Multiple suppliers
- Brand leader
- Roadmap

Imaging

Key sub segments

- Ink Printer
- Digital Still Camera
- Laser Printer
- Digital Video Camera
- Security Camera

2003 TAM	2007 TAM
71M	103M
26M	53M
11M	14M
10M	20M
12M	24M

Segment drivers to 32-bit

- Increasing data throughput, needs high CPU frequency, 32-bit data paths
- Move ASIC hardware functions to software equivalent
- Standards-based firmware less risky than custom hardware
- A/V software codecs are widely available

ARM's benefits to the segment

- Reduction of risk in ASIC design
- Standard platform firmware
- Standard bus infrastructure
- Third-party tool support
- Multiple OEM sourcing
- Time-to-market advantages using standard CPU architecture

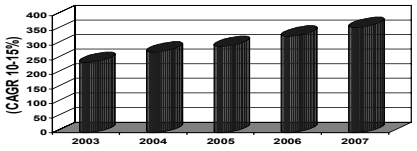
Storage

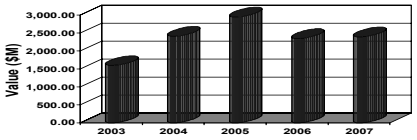
Key sub segments

- Hard Disk Drives
- Flash Cards & USB Keychains
- Networked Storage
- RAID
- Tape Drives

Segment drivers to 32-bit

- Growing storage densities require more performance and DSP capability
- Increased use of software instead of custom hardware requires more CPU horsepower
- Growth in Networked Storage (SAN) requires more bandwidth





ARM's benefits to the segment

- Complete roadmap ensures safe investment
- Vendor independence in an uncertain economy reduces risk
- World's best development tools solutions
- Lowest Total Cost of Ownership (TCO)
- Credibility as a globally recognised supplier

32-Bit Growth Drivers for Storage

Hard Disk Drives: 1998
- Predominately 16-bit CISC Processors or DSPs
  - CPU Requirement: 50-100 MIPS
- Heavy Hardware-Acceleration – Lacked Flexibility
- Software used for housekeeping and Interface Control

Major Advance: Software Servo Control

Hard Disk Drives: 2003
- Increased precision forces move to 32-bit processors
  - CPU Requirement: 200 - 250 MIPS
- Software used for computationally-heavy servo control
- Dual-CPU (400+ MIPS) designs specified for high-end

Major Advance: Two-stage actuators

Hard Disk Drives: 2008
- Increase in areal density necessitates a micro-actuator at the end of the main swing arm
  - Massive increase in DSP processing
  - CPU Requirement: 800 - 950 MIPS
- Miniaturisation requires low-power consumption

Consumer Entertainment

Key sub segments

- Digital Set-top-box
- Digital Personal Audio
- Portable Gaming
- DVD
- Colour TV

2003 TAM	2007 TAM
42M	91M
7.5M	30M
12M	15M (+ mobile phone)
55M	110M
137M	146M

Segment drivers to 32-bit

- Performance requirements increasing on back of more networking, mass storage
- Multiple codec support driving market to soft solutions
- Mass storage in consumer devices driving more complex apps and OS's
- Cost constraints driving SoC developments where processors delivered as IP

ARM's benefits to the segment

- High Performance Roadmap with;
  - Java acceleration for MHP and OpenCable STB markets
  - Excellent code density characteristics for reduced system cost
  - Market leading SoC integration support to enable high levels of integration
  - Wide range of third-party OS, Middleware and application support
- Business finances

Secure

Key sub segments

- SIM
- Financial
- Gvt ID/IT security
- Pay-TV
- Health

2003 TAM	2006 TAM	2007 TAM*
477.9	671.0	734.7
208.2	478.3	587.8
64.2	117.9	153.5
47.7	81.8	98.1
26.3	58.2	72.8

Segment drivers to 32-bit

- Performance: Java Card™, Crypto, Biometrics
- New NVM processes allow 32-bit integration with min chip size impact
- Fragmentation of the value chain accelerates need for open platform

ARM's benefits to the segment

- High performance/low power trade-off
- Small die area + industry leading code density make solution cost-competitive to 8/16-bit!
- ARM Partnership breadth brings new pool of SW developers in this space --> innovation
- World-class quality of tools
- The most widely licensed 32-bit CPU for smart cards/secure applications is ARM

*:Dataquest for 2003-2006, ARM for 2007 , Dec'02

Networking

Key sub segments

- Wireless LAN
- VoIP
- Digital Modems (xDSL, cable)
- Home Gateways

2003 TAM	2007 TAM
31M	86M
6M	33M
28M	67M
5M	35M

Segment drivers to 32-bit

- Performance
- Efficient implementation/cost effectiveness
- Net endpoint intelligence
- Net standards implementation TTM
- Single platform consolidation

ARM's benefits to the segment

- Scaling CPU family implementations
- Complete solution for volume SoC dev't
- Wide spread availability from semis
- Solid third-party OS and apps software support
- Demonstrated uptake in the sub segments

Automotive

Key sub segments

- ABS/Airbag/Safety
- Body
- Dashboard
- Infotainment
- Powertrain

2003 TAM	2007 TAM
87M	100M
182M	220M
51M	61M
27M	45M
101M	126M

Segment drivers to 32-bit

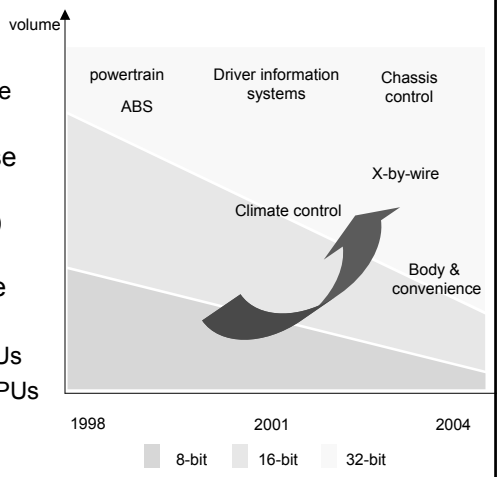
- Perf., OSEK, incr. Funct.
- Standards, OSEK, incr. Funct.
- Standards, OSEK, incr. Funct.
- Perf., grafics, standard products
- Perf., High End Timer IP, system IP

ARM's benefits to the segment

- Core in use and roadmap, code size, toolchain, fault robust IP/BIST
- Dual sourcing, standardisation
- Standard core, performance
- Performance, connected community
- Performance OK, but core does not matter, system that counts

Evolution of Automotive Electronics

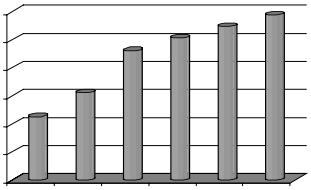
- Electronic systems are main differientator for vehicle mfgs.
  - safety, telematics, internet, x by wire
- Value of electronics continues to rise
  - $940 to $1,460 in 2004 per car (source: Gartner Dataquest Jan 01)
- By 2004 the mid-range car will have 40 to 50 CPUs
  - Today Volvo S80 has 18 major CPUs
  - New Mercedes S-class about 80 CPUs



Microcontrollers

Key sub segments

- White goods
- Brown goods (low end)
- Industrial control
- Building control
- Wireless security



Segment drivers to 32-bit

- Flash technology
- Performance for connectivity
- Extensive tools support
- Low price parts
- Low price tools
- Channel and supply

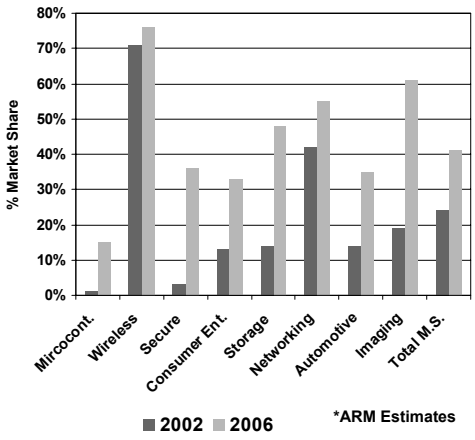
ARM's benefits to the segment

- Low power, low cost, wide support
- Very large third-party tools community
- Great debug support
- Multiple suppliers offering wide range
- Roadmap

ARM Strategies

Key Market Strategies

- Wireless
  - Maintain MS
  - Enable the value chain
- Microcontroller
  - Get started
  - Dedicated offerings
- Automotive
  - Expand embedded offerings
  - Evolve market up the ARM roadmap
- Networking
  - Focus on emerging apps
  - Application-based networking

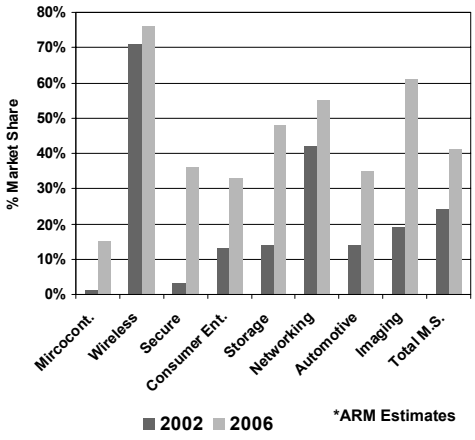


Estimated ARM Units shipping in 2006 ~ 2B cores

ARM Strategies

Key Market Strategies

- Consumer Entertainment
  - Expand IP offerings – MBX
  - Asia Pac focus
- Secure
  - Beyond smart cards – biometrics
  - Feature-rich offering – Java Card, banking
- Imaging
  - Cross segment offerings
  - Look at image processing value chain
- Mass Storage
  - Expanded offerings
  - New storage markets
- NEW MARKETS – Biotech Mems



Estimated ARM Units shipping in 2006 ~ 2B cores

Summary

- The market is moving away from 8-bit into 16- and 32-bit markets because of technology and costs
- ARM is well positioned in all of its target markets to take advantage of the evolution
- Different market strategies needed because of timings and technology trends

Licensing Models

Mark Evans
Director, Licensing
8 May 2003

Agenda

- Partnership overview
- Licensing - objectives
- License 'Pyramid'
- Overview of each license model
- Summary

2002 Top 20 Semiconductor Companies

Preliminary Top 20 Worldwide Vendor Ranking Based on Total Semiconductor Shipments Worldwide in 2002 (Millions of U.S. Dollars)

2001 Rank	2002 Rank			2001	2002	CAGR (%) 2001-2002	2002 Market Share (%)
1	1	✖	Intel	24,927	24,150	-3.1	15.5
4	2	✖	Samsung	6,303	8,165	29.5	5.3
2	3	✖	Toshiba	6,783	6,529	-3.7	4.2
3	4	✖	STMicroelectronics	6,360	6,305	-0.9	4.1
5	5	✖	Texas Instruments	6,060	6,200	2.3	4.0
6	6	✖	NEC Electronics	5,389	5,681	5.4	3.7
9	7	✖	Infineon Technologies	4,386	5,355	22.1	3.4
7	8	✖	Motorola	4,828	4,800	-0.6	3.1
10	9	✖	Philips Semiconductor	4,402	4,355	-1.1	2.8
8	10		Hitachi	4,724	4,123	-12.7	2.7
12	11	✖	Mitsubishi	3,876	3,709	-4.3	2.4
13	12	✖	Fujitsu	3,786	3,345	-11.6	2.2
11	13	✖	IBM Microelectronics	3,792	3,307	-12.8	2.1
16	14	✖	Matsushita	2,804	3,211	14.5	2.1
20	15		Micron Technology	2,410	2,950	22.4	1.9
19	16		Advanced Micro Devices	3,801	2,710	-28.7	1.7
17	17	✖	Hynix	2,426	2,685	10.7	1.7
18	18	✖	Sony	2,570	2,678	4.2	1.7
14	19	✖	Sharp	2,519	2,657	5.5	1.7
21	20	✖	Sanyo	2,388	2,512	5.2	1.6
			Others	48,708	49,973	2.1	32.2
			Total	153,242	155,400	1.4	-

✖ ARM Partner

Licensing - Objectives

- Facilitate the proliferation of the ARM architecture, thus ensuring increasing volume of ARM core-based products across all markets
- Ensure momentum behind the ARM architecture is maintained regardless of market conditions
- Provide access and flexible solutions to address competitive, licensable architectures
  - e.g. ARC / MIPS / IBM (PPC) / Tensilica / Hitachi (SH)
- Build and grow partnerships with established and emerging companies moving Partners along the value chain
- License complementary IP to the ARM architecture

Evolution of Flexible Licensing Models

Our goal = ARM is everywhere

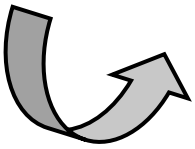
- Need to have a variety of flexible license models that work with the vast array of companies in the silicon business today
- Silicon providers range from very small (ie Resonext) to very large (ie Intel)
- All these companies have different capabilities and different needs

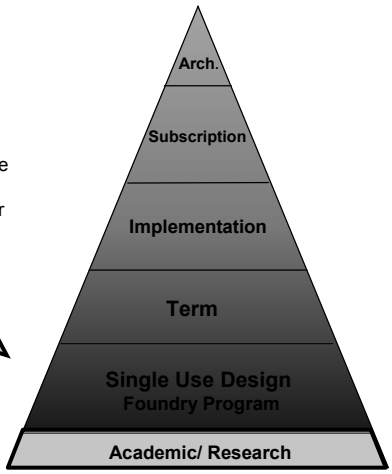
Licensing 'Pyramid'

Engage with Partner

Establish License Value
- Define license rights
- Provide deliverables
- Controlling IP exposure

Developing ARM/Partner Knowledge





Higher License Value,
Higher IP value
More Flexible License Rights

Higher Level Interaction
Commercial/ Technical

Increasing ARM Knowledge
-More Complex Deliverables
-More Configurability

Builds ARM Partnership

Non royalty bearing

CONFIDENTIAL

Validation, University, Research License

- IP rights + costs: Very low
- What this is: Provides design house partners (ATAPs), universities and research facilities access to ARM IP at low cost to validate, study, experiment and trial-run ARM technology. No manufacturing right.
- User profile: Design centres, universities, research institutes and selected customers that want to preview ARM IP
- Partners: Many – (eg 37 ATAP™ Partners, many universities)
- ARM view: Strategic

CONFIDENTIAL

Foundry Programme: Single-Use Design License

- IP rights + costs: Low. Royalty bearing
- What this is: ½ of Foundry Programme. Single per-Use Design implementation License (SUDL) based on limited deliverables set.
- Customer profile: Typically fabless semiconductor companies, start-ups, small- to medium-size companies with a single product need
- Partners: More than 50 – mostly in the US and Taiwan
- ARM view: 'Seeding' ground to bring customers into the ARM partnership – affordable way to engage with ARM technology. Work closely with customer base, some will move up the licensing pyramid.

Foundry Programme: Foundry Manufacturing License

- IP rights + costs: Low. Royalty bearing
- What this is: ½ of the Foundry Programme. Gives licensed foundries right to manufacture what SUDL has designed.
- Customer profile: Wafer fab companies with global or regional presence
- Partners: 7 – TSMC, UMC, Chartered, AMI, Silterra, Anam, Tower
- ARM view: Critical to success of the Foundry Programme - to enable SUDLs to build what they design. Part of the 'seeding' strategy.

Multi-use Implementation License

- IP rights + costs: High. Royalty bearing
- What this is: Per product Implementation license. Can be perpetual or term bound (next slide)
- Customer profile: Semiconductor companies that can make multiple use of ARM IP to address a specific need or a variety of needs
- Partners: Many – typically medium to large semiconductor companies have one or more Implementation licences
- ARM view: 'Sweet spot' of licensing – main focus, drive licensing volume with this traditional model.

Term v Perpetual Implementation Licenses

- What is a Term license?
  - Implementation license limited to fixed period of time, 2-4 years. Typically 50%-70% cost of perpetual.
  - Royalty rates higher
- Why introduce Term?
  - Lowers barrier to implementation rights license
  - ..yet maintains value for ARM
  - 'Pulls' SUDLs into this realm – more value for both
  - Some companies have single product line focus where they do not need or want (or can afford) perpetual licence
  - Ensures ARM extracts available budget in difficult markets

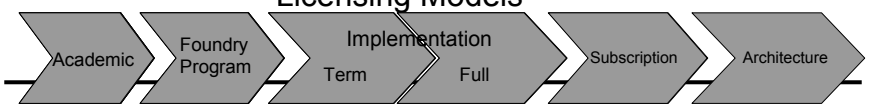
Subscription License

- IP rights + costs: Very high. Royalty bearing
- What this is: Gives Partners access to an agreed suite of ARM technology for a finite period
- Customer profile: Large semiconductor companies with wide range of products targeting a number of markets
- Partners: 3 – ST, Philips, Samsung
- ARM view: Focus only on large silicon companies; minimises annual per-product negotiations and legal discussions. High level of partnership.

Architecture License

- IP rights + costs: Highest. Royalty Bearing.
- What this is: Provides rights to develop ISA compliant implementations
- Customer profile: Companies with extreme amount of CPU design skill set and experience, differentiate through use of design skill / technique, make best use of process technology
- Partners: 2 – Intel and Motorola
- ARM view: Will be limited to those Partners that have the in-house expertise to benefit, thereby enhancing the ARM world

Licensing Models



License Value:	Very Low	Low	High	Very High	Highest
Rights:	Very restricted	Restricted •Design •Manufacture •Products	Unrestricted •Design •Manufacture fixed or perpetual term Full product offering	Unrestricted •Design •Manufacture •Agreed suite of ARM technology – finite period	Develop ISA compliant implementations
Purpose:	Academic study research	Designed for fabless business model	Generic ARM Partner model	Secure commitment to ARM designs	Differentiated implementations Exploit leading-edge technology
Target:	Research institutes Universities Design house	Fabless start-ups, Small-medium businesses Foundries	Major multinationals	Major multinationals targeting diverse product segments	Leading companies with microprocessor core design expertise
Value to ARM:	Transfer of ARM knowledge	Engage with emerging leaders	Proliferation of ARM products	Easy adoption of ARM across Partner organisation	Knowledge transfer into roadmap development

Further Channels

- ALP Programme
  - Extension to the Foundry Programme
  - Value-added Partners
    - Flextronics and Toppan
  - Full ‘one stop shop’ service
- In-licensing
  - Formal programme of third-party IP
    - Intelligent Energy Management (IEM) with National Semiconductor
  - Offer through established channels with current licensing models

Summary

- ARM has multiple license models to address needs of entire semiconductor industry
- License rights and term scale to the cost of the licence
- Developing new channels for new business opportunities
- ARM maintains license value by providing the right model for the right situation; goal is success for both companies

Upgrades and Derivatives

John Cornish
Director, CPU Product Marketing

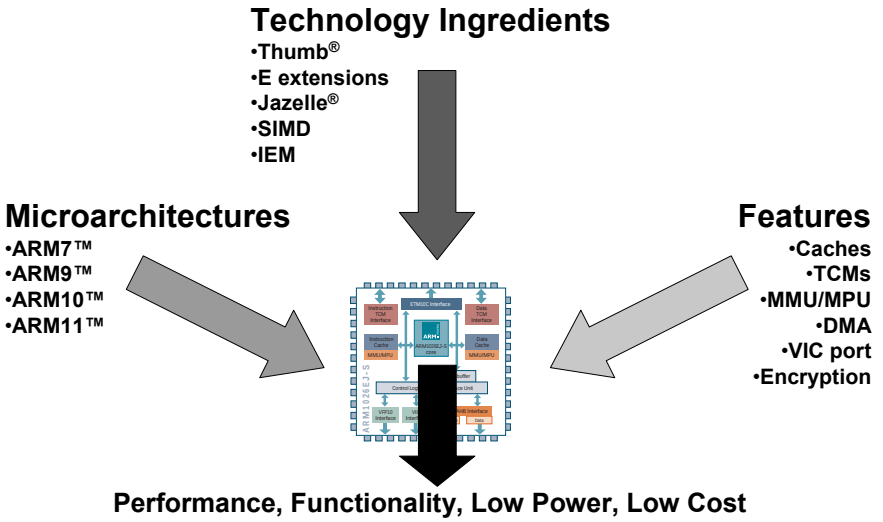
8 May 2003

ARM Partner Model

- Understand Partner requirements
- Serve Partner's evolving needs
- Preserve Partner's investment in ARM

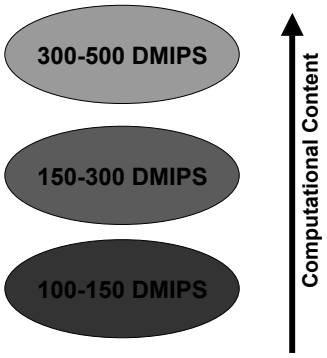
- Motivations to upgrade
  - New cores specified by OEMs
  - Evolution of end equipment needs
  - Partner entry in to new markets
  - Partners committing to fewer architectures

Creating Compelling Cores



Persistent Performance Points

- Long-term need for multiple performance points
  - Computational content driven by standards
  - Power and cost penalty for excess performance



3G phones	**Open OS**
Network switches	**Gigabit Ethernet**
Automotive control	
Wireless LAN	**802.11**
Cable Modem	**DOCSIS**
2G feature phone	**GSM, MMS, Java**
Hard disk servo	**Areal density**
MP3 playback	**MP3, WMA**
GSM baseband	**GSM**
Microcontroller	

ARM Microarchitecture Generations

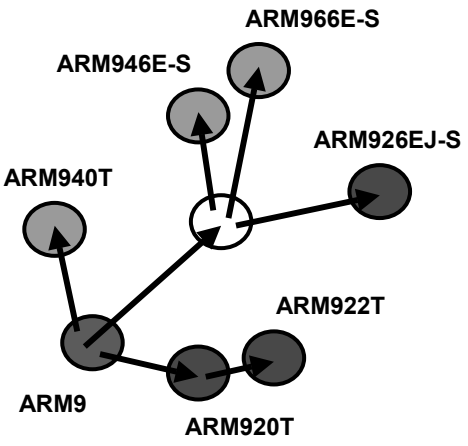
- ARM7 **1995**
  - 3 stage pipeline, unified bus interface
  - ARM7TDMI® core:133 MHz
- ARM9 **1997**
  - 5 stage pipeline, Harvard architecture
  - ARM926EJ-S™ core: 200 MHz
- ARM10 **1999**
  - 6 stage pipeline, static branch prediction
  - ARM1026EJ-S™ core: 266 MHz
- ARM11 **2002**
  - 8 stage pipeline, dynamic branch prediction
  - ARM1136J-S™ core: 335 MHz

Technology Ingredients

- **Thumb** **1995** **v4T**
  - **16-bit Code compression**
- **E extensions** **1998** **v5TE**
  - **Accelerate DSP and control algorithms**
- **Jazelle** **2000** **v5TEJ**
  - **Accelerate Java code execution**
- **SIMD** **2001** **v6**
  - **Accelerate audio and video performance**
- **Intelligent Energy Management** **2002**
  - **Dynamic voltage and frequency scaling to reduce power and extend battery life**

Family Derivatives

- Leverage the base microarchitecture
- Optimise power and performance
- Tune the component mix
- Add technology ingredients
- Extend the application range



ARM9/ARM9E™ Family

Technical Advantages

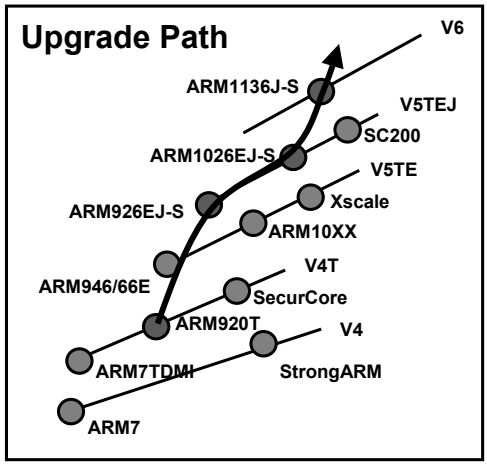
- Infrastructure support
  - Development tool availability
  - System software support
- Power
  - Reduced system weight and cost
  - Extended battery life
- Area
  - Reduced chip cost
  - Space to add other functionality

Business Advantages

- Win more sockets
  - Strengthen competitive position
  - Help displace proprietary architectures
- Engineering cost
  - Reduce average core development cost
  - Reduce development time
- Total Available Market
  - New core derivatives address the needs of more applications and Partners

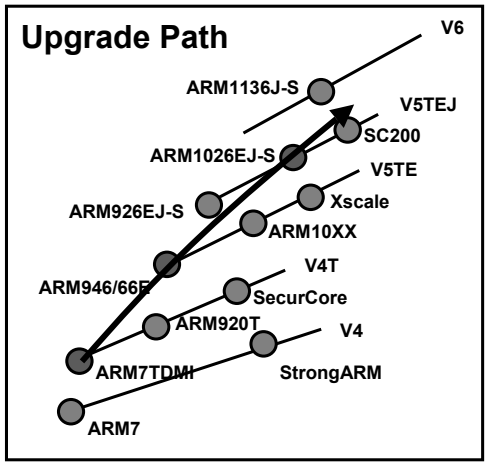
Applications Processors

- Open operating systems
- Java applets
- Multimedia applications
- Games



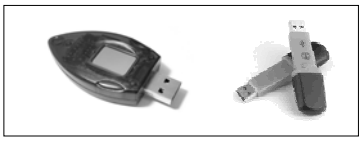
Embedded Control Processors

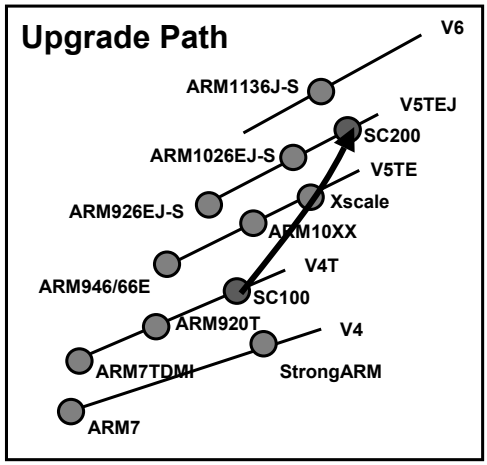
- Predictable real time response
- DSP for modems, motor control
- Real-time debug capability
- Floating point



Secure Processors

- Super compact
- Protected IP
- Crypto acceleration
- Java Card acceleration



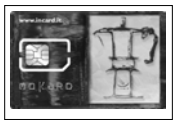


Upgrade Examples

- **Qualcomm**
  - **1998 licenses ARM7TDMI core**
    - **MSM3100 for CDMA wireless handsets**
  - **2002 licenses ARM926EJ-S core**
    - **MSM6100 for CDMA2000 handsets**
  - **2002 licenses ARM1136J-S core**
    - **For advanced wireless voice & data devices**
- **Sanyo**
  - **2000 licenses ARM7TDMI and ARM7TDMI-S®**
    - **SANYO LC67F5104A microcontroller**
  - **2001 licenses ARM926EJ-S PrimeXsys™**

Upgrade Examples

- Samsung
  - 1996 licenses ARM7TDMI core
    - MSP Multi-Media Signal Processor
  - 1999 licenses ARM9TDMI and ARM920T™
  - 2001 licenses SecurCore™ SC100™ cores
  - 2001 licenses ARM926EJ-S, ARM946E™, ARM1020E™ cores
  - 2002 long term subscription license



- Conexant
  - 1997 licenses ARM7TDMI core
    - AnyPort RL56CSMV/3 central site modem
  - Licenses ARM940T™ core
    - CX82100 home-network processor
  - 2003 licenses ARM926EJ-S core

Future Directions

- Architecture evolution
  - Enhanced security
  - Greater code efficiency
  - Scalable design
- Microarchitecture directions
  - Increased parallelism
  - Higher performance
- Components
  - Intelligent Energy Management support

Summary

- The ARM World continues to drive new business opportunities, in new markets
  - Solving real customer problems with a full value proposition
- ARM architecture helps solve SC Partners' cost of ownership challenges
  - The breadth and flexibility of our Licensing Models enable us to adapt to industry trends, while still maintaining the value of the ARM architecture
- Upgrades & Derivatives focus on ingredients (Media, Security, Power) as well as performance and so provide Partners with compelling solutions for their current and future applications
- Strengthening our leadership position
  - E.g. Ongoing success in wireless - Media phones a reality; Personal data is a driver - imaging, storage, networking; New areas for 8-bit migration auto / MCU